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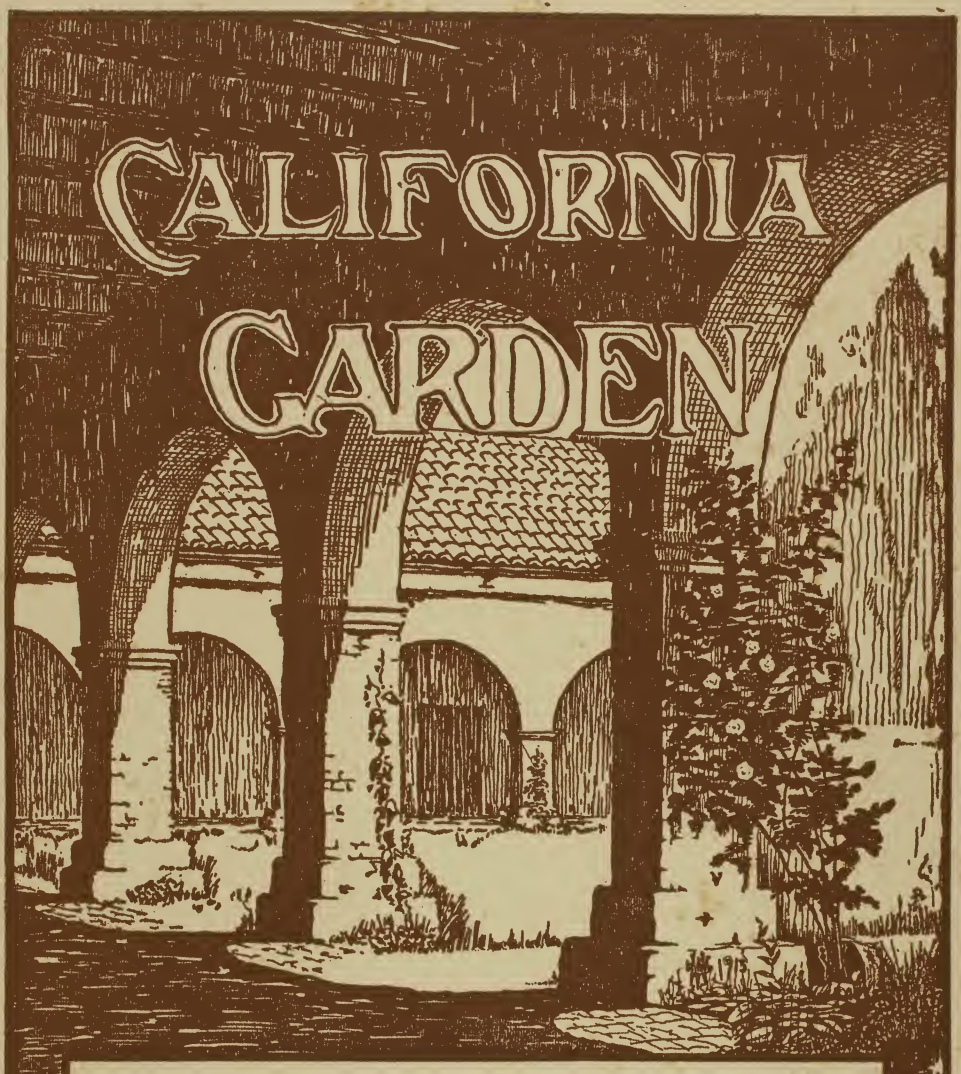

IN THIS NUMBER

PINES OF BALBOA PARK
By C. I. Jerabek

PLANTS WITH ORNAMENTAL BRACTS
By F. G. Woodcock

ARE WE PROTECTING DESERT PLANT LIFE
By Maj. Geo. G. Bowers

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PINES OF BALBOA PARK by C. I. Jerabek

Among coniferous trees the pines are perhaps the best known and are not only the largest group, but are considered the most important in commercial value. They are variant in character from towering giants to mere shrubs suitable for rock gardens. The larger kinds are more adaptable to parks and extensive estates. One good feature of these trees in our climate is that many are drought resistant and do not need any water between rainy seasons. The branches of these trees grow in tiers, the needle-like foliage coming in fascicles of from one to five. Some of the species are very resinous.

About half a mile west of the Roosevelt Junior High School are some beautiful specimens of Pinus coulteri (Big Cone Pine) a native of California. At a distance you might take them for Torrey pines, on account of the color of the leaves which is a bluish-green but on closer examination you will find that their leaves are in bundles of threes instead of fives and are stiffer in texture. The cones generally grow singly on the branches, and are of a gigantic size, sometimes over a foot long and six inches in diameter, weighing five or six pounds. On the end of each scale is a spine like an eagles-claw, the scales are also very resinous which makes them disagreeable to handle. One seldom finds a whole cone on the ground because when they fall they usually leave a few scales attached to the tree. Near this group are some attractive young Pinus canariensis, and another native pine, Pinus radiata (Monterey Pine) generally growing very symmetrical with large spreading branches, covered with rich green foliage, the leaves in clusters of twos and threes. In New Zealand this variety is used extensively for reforestation as it grows so rapidly.

Near Sixth and Thorn Streets are some splendid specimens of Monterey pines and a number of magnificent Canary Island pines (Pinus canariensis) which are considered one of the most beautiful of the genus, unusually long leaves growing in tufts, the older needles a greenish-gray and the new growth a silvery color.

In this same vicinity north and east of the Roque courts there is the mystery tree of Southern California, Pinus torreyana (Torrey Pine, Soledad Pine) indigenous to a small area of sandstone cliffs on the northern boundary of our city and on the Santa Rosa Islands off the coast of Santa Barbara. In its natural state it is very crooked and sprawly, generally leaning to the East on account of the prevailing winds coming off the Pacific. But planted a short distance away from the coast it usually grows into a straight sturdy tree, with an open appearance, the sparse blue-green foliage and the handsome chocolate-brown cones, giving it a look of majesty all its own.

On the north and west side of the Sixth Street aviary are some Aleppo pines (Pinus halepensis) a spreading tree covered with yellowish green leaves, beautiful when young but with age very unsightly. As they grow older the foliage gets very sparse, usually small tufts on the ends of the branchlets and with its numerous quantities of dried cones which it retains gives the tree a dead appearance. In a recent article in the American Forestry magazine it stated that in Italy the government had lowered Lake Nemi, uncovering one of the Royal Roman barges that had been buried under the water for over 2000 years. In the construction of this boat pine wood predominated and it is very probable that the wood is Aleppo pine.

Close to the corner of Sixth and Juniper Streets are three Pinus pinea (Italian Stone-Pine), a very compact pine with a broad spreading top and horizontal branches covered with bright green leaves in twos, cones almost globular and a beautiful brown. As the tree grows older the lower branches disappear forming an umbrella-shaped tree.

About a hundred feet east of these are three other interesting trees, Pinus Cembroides. Ordinarily a low branched tree with a bushy appearance, the branches hidden by bundles of rich green leaves, one to two inches in length, generally in threes but sometimes in twos, cones subglobose composed of a few irregular scales bearing seeds about half an inch long, which do not mature in this locality.

There is another pine very closely related growing north of Marston's Lookout, called Pinus edulis (Nut or Pinon Pine). This is gen-

erally a small tree but often a mere bush. Leaves growing in twos, rigid, dark green outside, inner faces glaucous, the leaves of each set usually have their interior surfaces close together; cones broadly ovate bearing seeds one-half of an inch in length. These seeds may be purchased in our confectionery stores and are considered a great delicacy. One cafeteria in this city uses them in many ways in cooking.

In the western part of the park about a quarter of a mile southeast of the end of Juniper Street is a beautiful grove of Pinus muricata (Prickle Pine), a very distinct species with its spreading branches hidden by dark green foliage, the leaves generally in twos; the cones a chestnut-brown egg-shaped in whorls of three to seven. At the ends of the scales may be seen very small hooked spines. The cones stay on the tree indefinitely, sometimes they can be found on the trunk when it is six or seven inches in diameter. This variety is excellent for seaside planting.

Growing on three sides of the Central Fire Station on Eighth Street is a planting of Pinus pinaster (Cluster Pine), a spreading tree usually growing in a pyramidal head, sometimes with pendulous branches covered with glossy green leaves in clusters of twos, very large and stiff, in fact the stoutest of two-leaved pines; cones are short stemmed usually borne in whorls, oblong, light brown and glossy. This variety of pines is very attractive when young; there are a few excellent specimens near the Pinon pines.

East of the old Civic Auditorium site are a few Austrian pines (Pinus nigra) generally a tree of considerable size, foliage deep green; cones ovate and glossy, the umbo is flattened but sometimes has a short spine.

South of the Japanese house between the two bridges stands a small shrub, Pinus montana variety mughus (Mugho Pine), one of the most useful of the dwarf pines, excellent for rockeries and small gardens, growing in a low dense spreading form; foliage a deep green, the tips of the branches ascending, the newer growth resembling candles. The cones are a light brown, sometimes with a prickle on the ends of the scales.

About forty-five feet east of this pine is a lone specimen and east of the National History Museum are seven broad-leaved trees, called Agathis robusta (Dammar Pine), a tree covered with broad, ovate-lanceolate leaves, coriaceous; cones generally oval. A very attractive and distinguished tree.

ROSES TESTED BY A HOT SUMMER

In spite of the prolonged drought, the rose garden has been a thing of joy all summer. The old favorite Duchess of Wellington, which rarely reaches 18 inches in height, has made three feet of growth and produced hundreds of perfect flowers with hardly a break in the blooming. Caused by the cool nights and heavy dews, there has been considerable mildew on some varieties, but little black spot, and the plants are in splendid condition for winter.

Several hybrid tea novelties were tried in my garden and a report on some of them may be of interest.

Abol proved to be one of the few good white roses. It is fragrant, one of good size and free blooming. Caledonia is the best white rose I have seen lately, large, high centered, fully double and blooms freely. If it had the fragrance of Abol it would be the long wanted white variety.

Probably Autumn is the darkest of the "fancy" shades. It is medium in size, very double. The color, however, is burnt orange streaked with red. There is a slight fragrance and unfortunately it is a shy bloomer.

A real yellow single has been found in Cecil with medium-sized buttercup yellow flowers, which fade but little. To be sure, this rose is a moderate bloomer but is very desirable.

Charles P. Kilham, with a long pointed flower of oriental red flushed with orange has been called an improved Mme. Edouard Herriot. The plant is much better than that old favorite, the flower more double and the rich color lasts much better. Charles P. Kilham is a splendid, beautiful and fragrant rose.

The name Clara Bow has been given to a so-called climbing sport of Golden Emblem. Clara has large golden flowers of perfect shape, the edges of the petals flushed with rose and a fruity fragrance. It fades to a pleasing soft yellow. My plants have not shown any sign of climbing, but as this is one of the most beautiful roses I have ever seen, and better than any Golden Emblem I can raise, I am perfectly satisfied for it to remain dwarf.

Director Rubio has a large loose flower of brilliant pink, sweetly scented. It is so large and has such a clean pink that it is outstanding.

I do not care for Golden Gleam although in the bud and half opened this is a beautiful rose of rich yellow. When fully open the petals curl in cactus fashion and it fades badly. On the other hand, I like Gladys Benskin with its high centered flowers and in color salmon and flesh with a golden suffusion, a beautiful shade. The plant is good and the flower has some fragrance.

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Grand Duke is a very double rose, something like Jonkheer J. L. Mock, carmine outside, rose inside. I have found it likely to ball unless the weather is dry. Altogether it is not very impressive. Impress, however, with large, fully double flowers of salmon cerise and fine shape is a free-blooming rose with fine prospects. Mari Dot is a beautiful fragrant rose of mixed orange and pink, fading to old rose. The plant is very low and spreading with splendid foliage, but is very thorny.

It seems to me that there is a bright future for May Wettern with perfect buds of deep rose, exquisite when half open but having only about twenty petals. Its one fault is the fact that it opens too quickly.

So far as I can remember, McCredy's Scarlet is the first of its color to have real form. There is an orange base to the petals which adds to its attractiveness. It is free blooming and I like it.

Mrs. John Bell is a large rose of splendid form, cochineal carmine with a golden base. It lasts well and is beautiful all the way. It has a slight fruity fragrance and is a consistent bloomer. This rose needs just a little more fragrance to make it one of the finest roses grown.

In Mrs. Sam McGredy, the McGredys have produced one of the finest roses in the last few years. It has good size and perfect shape. The buds are reddish copper and the inside of the petals coppery orange, making the open flower very distinct.

I have been disappointed in President Herbert Hoover. The plants were so poor that an honest opinion cannot be given, but the flowers have good shape and interesting shades.

The pale pink buds of Sunny South show a spot of deep rose when they begin to open. When fully open the flower is a lovely soft rose pink with a tea scent. The plant is very tall and the blooms come singly on long thornless canes.

Vermilion has a small semi-double flower of a new shade—vermilion scarlet. It has neither size, form nor fragrance, but the color is a novelty.

Several other novelties were tried but the plants were so weak that they could not be judged. Let us hope that the new plant patent law will operate to protect originators and introducers of new roses, so they will take time to work up a stock of good, strong plants before offering them at high prices.

Of course, those reported in October 1 Horticulture, last year, E. G. Hill, Edith Nellie Perkins, Golden Dawn, Joanna Hill, Jules Gaujard, Mme. Henri Lustre, Miss Rowena Thom and Mrs. Pierre S. Dupont have been even better this year. Golden Dawn has been one of the finest roses in the garden and several plants of Mrs. Dupont have been continuously in bloom since June. It is the best bloomer I have.

—R. Marion Hatton,
Horticulture, Oct. 1st, 1930

BRIGHT FLOWERING EUPHORBIAS

The Poinsettia, our brilliant Christmas decorative flower, and the Euphorbia Splendens or Crown of Thorns, are both Euphorbias and are easily recognized by the thick milky juice produced when the skin or bark is scratched. This class of plants flourishes with a wet and a dry season and in a mild climate, therefore San Diego is well adapted to their growth. The Poinsettia is propagated by dry wood cuttings in March when the plant is dormant and without foliage and each year after the leaves have fallen—about February—is the time to prune severely every poinsettia plant. Leave only about six inches of last season's growth. The best cuttings are the base of the long canes cut off. The harder the wood the better. The soft tips of the canes where the flowers were attached is useless for slips. Give very little water to the cuttings until about May 1, when the new leaves are showing. Then as they grow and the warmer weather comes on they will stand more water and feeding up to October 30th. Then lighter waterings while the flower is developing and by December 15th as a rule the flowers are sufficiently developed and hardened to be cut.

Burning the ends of the stem to a crisp over a gas flame or boiling the ends 15 minutes, then place in deep jars of cold water until ready to be arranged. Unless the stems are so treated the flower withers in a very short time. Euphorbia pulcherrima (or Poinsettia) is its botanical name and a native of Mexico.

Euphorbia splendens is in such strong contrast to the Poinsettia and most of the Euphorbias. It has small leaves and its small stem is quite thick with spines and the flowers are bright red and small about the size of a dime and in daily bloom. It is a crooked, spreading grower and can be trained against a wall or tied into a ball or cone shape or allowed to spread flat over rocks or on the ground. Its bright green leaves and scarlet flowers make it an attractive plant for a porch pot or urn and if kept on the dry side its blossoms are more abundant. Too much water makes greater growth and fewer flowers.

Every cutting roots readily in sand. I have found some seedlings in the open ground and also in the sand bed among the cuttings. It is a superior rock garden plant and associates well with Cacti. Being sensitive to a sharp frost makes it a house plant, except in the mild climates of our Southern Pacific Coast.

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NEWS FROM ABROAD

80 Osborne Road,
West Hartlepool,
Co. Durham, England.

To the Readers of California Garden:

Another year is nearly gone so I thought I would drop you a line or two before 1930 is a thing of the past. This year has been a pretty bad one for us in many ways. First the industrial depression for which they blame Ramsey MacDonald's Socialist Government, and secondly the weather conditions have been absolutely bad. A cold late spring, followed by a wet and none too warm summer, and now a very cold and wet autumn. Last week we had a very severe black frost which put "paid" to all outside flowers, particularly dahlias. They did look a sorry mess. The week end has been a little better; some have got them lifted and packed away in dry soil for the winter. I noticed friend Robinson said the begonias over here got "put to sleep" in a natural way. Yes, when a frost does come begonias and dahlias get completely knocked off, sometimes with disastrous results. A lath house would not be any use over here. We have a fair show of "mums" in the greenhouse and are hoping to keep a few for Christmas. It was my privilege to visit Belgium this year for the Tercentenary of Belgium's Independence. We (my daughters and I) set off from our home to Harwich (200 miles south) where we boarded the Turbins mail steamer "Inatines." Going on board at 10 P. M. we soon made ourselves comfortable at the supper table down below after which we came on deck for a while before going to bed, which we did about 11:30 P. M. We woke about 6 A. M. next morning just as we neared Flushing at the mouth of the River Scheldt. It is a very long winding river and the boat can only proceed slowly, so it was just 8 A. M. when we reached Antwerp. After going on shore and passing the Customs formalities we hastened off to our hotel for breakfast. We have been to the same hotel several times so feel quite at home. The rest of the day was spent in sightseeing—as usual. Next day we went to see the Great Exhibition at Antwerp. This was a huge affair, being originally laid out for another town. Drains, water, gas and electricity laid on and roads and streets already made, so that after the Exhibition is wiped out, they can go on with their building operations at once. All the chief countries in the world had their own pavilions and these were in huge squares beautifully laid out with flowers and shrubs similar to your last Exhibition in San Diego. But the most beautiful sight was to see the exhibition and grounds lit up with millions of electric lights. All the towns and villages over Belgium were lit up at night in a similar manner so you can imagine the effect. I met visitors from Africa, New Zealand, Spain, Jamaica, San Francisco, Texas and Los Angeles and they stated they had never seen anything like it anywhere. (The visitors from Los Angeles were Mr. and Mrs. Barris and they should be home by now. If this meets their eye I hope they had a good journey home and some pleasant recollections for the "Hotel de Angleterre".) We had one great treat at the Exhibition, all during the summer. They arranged a 3-day Floral Fete every week and we struck the Dahlia Fete. Every dahlia grower in Belgium and Holland competed for the magnificent prizes. There were hundreds of thousands of huge blooms laid out on squares of green carpeting (ferns, etc.) and huge pyramids of blooms of separate colors arranged on moss covered wire stands seven feet high. There were also whole plants of dahlias with 20 or 30 blooms on in huge vases and the effect of the whole was most magnificent. The grounds of the Exhibition were laid out with shrubs, roses, dahlias and begonias tuberous and fiberous. All the open spaces in the cities are laid out in beautiful boulevards and gardens. Millions of small fiberous begonias are used every year in carpeting these places and the effect is beautiful. I like the boulevards and gardens of Belgium better than those of Paris. We also had pleasant trips to Matines, Bruges, Ghent and Louvain. We managed to get a peep into Holland and smelt the lovely brown peat, one of your readers mentioned recently. Holland is the place for dahlias and bulbs; in fact you can't stir for bulbs. Dahlias, tulips and narcissus are very cheap as you will see by the catalogues sent you with my papers. I noticed in my paper this week several firms in Holland advertising 500 gladioli carriage paid to England for less than two dollars, and include twenty-five bedding begonias for luck. Don't run away with the idea that the Dutch and Belgian begonias are on a par with the Rosecroft breed, because they are not in the same street; they are only bedding kinds, but admirably suited for that purpose.

This is not strictly a garden letter but I thought you would like to know a little about Belgium and I have had many happy hours in its boulevards and gardens and can assure any likely visitors a hearty welcome anywhere and any time. I figure out that this will reach you at the end of the year, so please accept my heartiest wishes for a Bright and Happy Christmas and a Prosperous New Year.

Very sincerely yours,

W. C. King.

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ARE WE PROTECTING DESERT PLANT LIFE?

By Maj. Geo. B. Bowers

Southern California has awakened to the necessity of measures for the conservation of desert plant life. Farmers who have reclaimed large desert areas are sustaining losses annually through the indiscriminate destruction of the natural plant life surrounding their fields. Lack of plant life bordering desert roads has also added greatly to the cost of their upkeep because of drifting sands and floods.

Desert farmers are compelled to fight two elements which rarely if ever occur together in non-desert regions—wind and water erosion. Both transport the loose, sandy soil, causing considerable destruction wherever the surface is denuded of plant life. Cloudbursts and floods from the steep mountain slopes cut deep channels in hours or spread blankets of sand over whatever crop lies within their path. The steady desert winds sweep the loose sand before them to sift over cultivated fields or build it into dunes on field and highway.

Both wind and water erosion are the most destructive when unimpeded by vegetation. This may be observed where the desert plants have been removed by road workers, thoughtless motorists and others. To prevent wind erosion farmers plant rows of trees along the highways and field borders. Many desert roads are protected against desert floods by long dikes. Some of this protection would be unnecessary if the desert were permitted to maintain its natural growth on lands not actually usd for farming.

Most of the counties of Southern California have prohibited the unauthorized removal or destruction of desert plants. Flower picking, too, is illegal and subject to fine except it be done by the owner of the land. As much desert land still belongs to the government, even the collection of plant specimens by the scientist will entail red tape. Riverside, Imperial, San Diego and San Bernardino Counties have adopted such regulations. Motorists are warned against violation through newspapers and signs.

It has been pointed out that regulations thus far published are somewhat inconsistent and seemingly show a lack of knowledge of desert conditions. Although a motorist may not legally pick a desert bloom on public land, sheep and cattle that swarm over the desert in the springtime may do so without restriction.

The problem of unregulated grazing seems vastly more important than the destruction by tourists and others. This phase might well be studied. Each year the desert is becoming more barren, but for that barrenness the motorist may be blamed but little.

There is yet another problem of desert plant life conservation, the prevalence of mistletoe and dodder. The mistletoe attacks and kills mesquite and other desert trees; the dodder, the shrubbery. In the Colorado Desert thousands of mesquite are killed annually by mistletoe. There are thousands of acres denuded every year by dodder. Investigations have failed to uncover any agency for the control of either pest. No one, it seems, has suggested an effort to reforest the desert with its natural vegetation.

As a solution to the problems set forth there should be grazing regulations for the desert as well as elsewhere. It would be well to send scientists to study the eradication of pests destroying desert vegetation as well as means of replanting the areas already denuded by sheep, cattle and pests.

(Editor's Note: With reference to the matter of grazing of sheep and cattle over desert lands, this matter was taken into consideration by the Board of Supervisors of San Diego County when Ordinance No. 341, prohibiting the picking or destruction of any and all wild plants, was formed. It was felt at that time it would not be wise to attempt to prevent a practice that had been followed since time immemorial. All advance in plant conservation matters, as well as in material things must be more or less gradual so as not to disturb the existing order too greatly at any one time. Perhaps the day is not far distant when domestic animals can be barred from indiscriminate grazing on public lands. This will undoubtedly be the next step in wild plant conservation.)

TREE BREAD

The bread that grows on trees may not make much of a "hit" with Americans, but natives of South Sea Islands appreciate it. All they have to do is to pick off a loaf and chuck it in among the hot embers, bake it awhile and there it is, ready to eat. The inner part is a rich, starchy mass that is said to taste like mashed potatoes made with plenty of cream.

The breadfruit tree grows, in its island homes, to be 30 or 40 feet high. It is now to be found growing in southern Florida, but civilization has changed it. The food value has been increased and much of the fibrous part has been done away with.

The leaves are huge and glossy; fruits, like huge mulberries the size of one's head, hang from the axils of these leaves. The fruits are a combination of a number of smaller ones, like formation of berries. This breadfruit is also grown extensively in British West Indies and is one of the msot valuable of fruits grown there.—C. D. B.

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The California Garden

Editor
Silas B. Osborn

Associate Editors
John Bakkers
Walter S. Merrill

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MUCH ADO ABOUT NOTHING

The editor's attention has been directed to an article of recent date appearing in the local press dealing with a proposed formation in San Diego of a local chapter of the "League of City Beautifiers." Among the ambitions of the loquacious gentleman quoted was to establish in San Diego a branch of the Mandeville Canyon botanical garden of Santa Monica. Also an expedition to the Amazonian jungles of Brazil to obtain rare fauna and flora including beautifully colored birds common to that region for the aforementioned botanical garden. In almost the same breath this worthy botanical expert waxes eloquent over the famed botanical gardens at Buitzenborg, Java, and speaks of using tax funds to plant and maintain highway trees.

Is it any wonder that many taxpayers of this community draw tight the public purse strings when bonds for State-County Parks are proposed? Is it any wonder that public officials are reluctant to utilize public funds for judicious and sorely needed tree plantings in the face of such quixotic inanity?

It is hardly necessary to point out that this gentleman is quoted as saying that the Mandeville Canyon project has been "revived" with proposed aid from State, County and City Governments. He speaks of $800,000 having been already expended on it and still it evidently needed reviving. Apparently nothing short of a raid on the U. S. mint would put it on a firm foundation.

That San Diego County is in a semi-arid region totally unadapted to the well being of the fauna and flora of the humid, tropical Amazonian jungles of Brazil. That we have a marvelously beautiful and practical park in our midst which will take us many years to fully and wisely develop; that the proposed State-County Parks already have the assurance of State aid. That there is already in San Diego an organization in existence over twenty years dedicated to community horticultural improvement — the San Diego Floral Association; that such ill-advised utopian outbursts can only serve to crystalize opposition to well considered local horticultural improvement.

But perhaps this sagacious Moses had but in mind making the front page of the newspapers, in which case he succeeded admirably.

NEW MEMBERS AND SUBSCRIBERS FOR JANUARY

Captain C. N. Fiske, San Diego.
Mrs. J. J. Jarvis, San Diego.
Mrs. D. J. Youngs, San Diego.
Dr. Jose A. Gayoso, South America.
San Pedro High School, San Pedro.
Miss Ella Roder, Point Loma.

NOTICE OF JANUARY MEETING

The regular monthly meeting of the San Diego Floral Association will be held in the Floral Building in Balboa Park on Tuesday evening, January 20th, at 7:30.

Mr. Fred C. McNabb of the Aggeler Musser Seed Company, has kindly consented to address the meeting and will speak on Pruning of Roses and Seasonal Planting.

Next month the Association hopes to have the pleasure of hearing Mr. Armacost, the famed orchid grower.

NOTICE

The following numbers of the California Garden magazine are needed for the reserve files. Will those able to supply them please communicate with either the president or the secretary.

1911—July, Aug., Sept., Oct., Nov.
1912—Jan., Feb., April, May, July.
1922—Dec.
1924—March, June, July.
1927—August.
1929—June, September.

REPORT OF THE DECEMBER MEETING

The December meeting of the San Diego Floral Association took the form of a beautiful Christmas party, Tuesday, December 17. Lighted candles sent cheery greetings from every window. A living Christmas tree, a beautiful Deodara, loaned by Milton Sessions, and gayly decorated with ornaments and lights, welcomed the members as they entered the club rooms which were decked with holly wreaths and tall sprays of fluffy pine branches.

Mrs. Mary A. Greer, the president, greeted all in a Christmas message and presented Milton Sessions, who gave pertinent and novel ideas for arrangement of Christmas shrubs and flowers. He appealed strongly for action towards planting of more living Christmas trees not only in home gardens but on the streets. After treating on his subject he asked leave to tell of his trip to Mexico in November and painted a vivid word picture of the wild zinnias, salvia, orchids and other plants in full bloom at that time.

No meeting would be complete without the descriptions of specimen plants by Miss Kate Sessions. Seldom is a plant brought in that she is not able to identify and give instructions as to culture. By her impromptu awarding of plants it has been made possible for most of us to have one of her favorites (each one seems to be her favorite), from her own hands, in our garden.

At the close of Miss Sessions' talk, the hall was darkened and a group of red-caped Girl Scouts carrying lighted candles, came down the long verandah singing carols. After a short program of carols in which the audience joined the girls strolled out into the night and we sat in communion of spirit as the strains of the old story "Peace on Earth" floated back to us from the distance.

Mrs. Robert Morrison presided at the beautifully decorated table where Christmas cookies and candies were served with the coffee.

Each person was presented with a growing plant in colorfully wrapped cans and left the hall with arms full of red berries, poinsettias and sprays of pines, so that it was a Christmas party long to be remembered.—C. B. T.

ENCINITAS MID-WINTER FLOWER SHOW

The National Mid-Winter Flower Show which holds its Annual display at Encinitas, 30 miles north of San Diego on the Coast Highway, are this year endeavoring to attract the attention of the many amateur growers of San Diego County. The management feel that it is to the amateur growers they must look to make their future shows a success.

The preliminary schedule of the coming show is now available to anyone writing Thomas F. McLoughlin, Manager, Box 213, Encinitas. There are 27 competitive classes, but many of the classes such as the Bulbous, Iris, Annuals, Perennials, Sweet Peas, Gladioli, Roses, Anemones, Rananculas, should attract many entries from the many good amateur growers in San Diego City and County. If anyone finds difficulty in being able to be present to enter or stage their exhibits the manager will see that any such entries are taken care of and entered in their proper class. This year in conjunction with the Flower Show, will be held the Pacific Slope Horticultural Conference. The Conference will be in session four days; daily lectures on Horticultural subjects will be given to visitors at the Show by nationally known experts, and at present it is announced by Dr. A. D. Houghton, M. D., F. R. H. S., President of the Conference, that Robt. Manda, Orange, New Jersey, a noted orchid expert, also Mr. J. Pring, Botanic Gardens, St. Louis, is expected to be present. Other noted speakers invited to address the Conference are E. O. Orpet of Santa Barbara on raising Exotics from seed; Prof. E. O. Essig, Professor of Entomology, University of California, Berkeley; Walter C. Armacost of Los Angeles; S. B. Osborn, La Mesa, on Roses; Major Geo. Bowers, San Diego, and others.

Thos. F. McLoughlin.

WEATHER DURING JANUARY

By Dean Blake, Weather Bureau

The coldest month in San Diego County is January, and frequent frosts occur in the districts back from the coast. Firing is necessary at times to protect citrus fruits in the more exposed localities, but on the hillsides and mesas, temperatures rarely fall to the danger point. At the station in the city, the thermometer has dropped below 32 degrees twice only, January 6 and 7, 1913, when 28 and 25 degrees were recorded during a general cold wave over the State. Maximum temperatures over 70 degrees are frequent, and when the land breeze prevails, day after day of invigorating dry weather persists.

The average rainfall for the month is 1.84 inches. Since the record began in 1850, there have been two Januarys with no precipitation, and several times more than 5 inches has been the monthly total. The average number of days with rain is six. Snow falls in the mountains and occasionally in the foothills, but only once has it been observed near the coast.

The sun shines 62 per cent of the time possible, and 16 clear, 8 partly cloudy, and 7 cloudy days are the average. In spite of its being one of the rainiest months, the relative humidity is low, averaging 70 per cent.

Strong blustery winds occur during the rainy spells, and sometimes continue for several days, but on the whole the month is characterized by cool, bracing, quiet days rather than by stormy waether.

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DR. RAPHAEL LORINI WRITES FROM FLORIDA

Dr. Raphael Lorini of Coronado is spending the winter in Florida and writes of the flora there in comparison with the plants flourishing here as follows: At Winter Park I had my first glimpse of many tropical plants growing luxuriantly out of doors, which in California are seen only in the conservatory and greenhouse. Conspicuous are the Acalyphas in a great variety of brilliant foliage. The Hibiscus grow to such enormous size owing to the great humidity of the climate. The rainfall averages from 47 to 65 inches and Florida has 30,000 lakes. The state is underlaid with stratas of limestone and there are subterranean rivers and many wonderful springs. You can realize how useless it is to compare these two states —one naturally so full of water and California so dry. Each state produces what the other cannot and it is folly to regard them as rivals. Both are necessary to the country and are complementary. Florida is so near to the large eastern cities, less than a day from New York.

To continue with the plants—The Bauhinias grow to tree dimensions and blossom freely. Allamandas grow everywhere, trimmed back as a bush or allowed to ramble over fences, tree stumps and pergolas.

The blue Thunbergia grandiflora or sky flower that is rare in San Diego grows luxuriantly everywhere and the three Bougainvilleas are very fine. Crimson Lake not quite so floriferous as the other two, Brazilliensis and Lateritia. The Artillery plant forms beautiful clumps on lawns.

Acacias riciana, Juniperiana and hortulana I think will do well in San Diego. I am enjoying the carica papaya and wish we had it there. The Rosa Montana (Antigonon Leptosus) is a great success here and does well enough in San Diego to be more generally planted. The great charm of Winter Park is that its streets are lined with magnificent Laurels and Live Oaks, many with a basal diameter of three or more feet. These trees are festooned thickly with the famous Spanish moss, Dendropogon usneoides, which is not a moss but a true flowering plant allied to the lilies. Neither is it a true parasite but an air plant simply utilizing the tree for support. Even the telephone poles and wire fences are draped with it and possibly because of the humid climate.

Ferns in great variety are very conspicuous, especially the tree Dicksonias and Bird's Nest ferns. The Eucalyptus is a decided failure here and look sorry that they are asked to grow here. Our good pepper tree also is not good but the Schinus Terebinthifolius is fine.

Motoring from Winter Park southward to Palm Beach we travelled for miles along the Indian River and viewed for the first time really fine orchards of orange and grapefruit. The Cocoanut Palm is only fine at Palm Beach and further south. Without it the scenery would be monotonous indeed. The native pine is a failure, the Cocoanut Palm is not indigenous but there are about 12 native palms but only one is really beautiful growing in clumps in the jungle. The Royal Palm, the aristocrat of all palms, I have not found here as yet, it is abundant farther south.

The Cocos Plumosa is here but does not seem to be as thrifty as other palms. The two screw pines, Pandanus Veitchii and utilans are everywhere. The traveller's tree Ravenala Madagascarensis is also a success here. Its flowers are very similar to Strelitzia nicolai that does so well in San Diego and needs to be more generally planted.

The fig and the olive do not do well and are rarely seen and the fruit of the banana is not as fine as those grown in Central America.

Crotons of many colors and forms of foliage are conspicuous and are gorgeous but too many are planted together, the same way with the brilliant Acalaphas—not enough contrasting foliage of green planted between their masses. There are a large variety of the ficus or Rubber tree.

It is a wonder to me how any of the plants I have mentioned can thrive in this alleged soil which is 50% white sand and 50% mixed shells large and small and microscopic. The humus which is apparently lacking is supplied at great expense, brought from the everglade swamps in the form of black muck but is evidently rich in plant food.

I can count upon one hand the number of blue grass lawns in Palm Beach. It grows well in winter but a failure in summer. The lawns and golf clubs use a mixture of Bermuda and a creeping grass from St. Augustine.

Weeds and insects thrive in this climate and the Citrus trees seem to be overwhelmed with a large variety of scale.

I am enclosing seeds of Aristolochia sipho, interesting because of its seed pods. When ripe they hang like a little basket and the seeds are enclosed in the six compartments of the shell or basket and it really is a very remarkable seed vessel.

K. O. Sessions.

EATING PLANT

This plant is to be found in Nicaragua, near the lakes and in deep swamps. Natives call it "Devil's snare." It is a vine of brownish color, covered with a thick gluey resin. Its finger-like claws catch small animals, enveloping them in a network of diabolical arms. Here the poor victim is held until the last drop of blood is drawn from his body by the minute

—C. D. B.

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LATH HOUSE MATTERS

By Alfred D. Robinson

If there were not thousands of other things to remind me, I should yet know when the New Year comes around because of the inward stir to plant seed. In my mind's eye is the picture of the sower who went forth to sow. I see his outstretched arm as he scatters the seed with rythmic fling and I take down the Bible, alas somewhat dusty, and read the whole parable.

"Behold a sower went forth to sow; and when he sowed, some seeds fell by the way side, and the fowls came and devoured them up: some fell upon stoney places, where they had not much earth: and forthwith they sprung up, because they had no deepness of earth: and when the sun was up, they were scorched; and because they had no root, they withered away. And some fell among thorns; and the thorns sprung up, and choked them: But other fell into good ground, and brought forth fruit, some a hundred-fold, some sixty-fold, some thirty-fold.' '

And then I turn back to Genesis and read: "And God said, Behold I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat."

Then I am ready to go to work, I have some of the proper feeling of reverence and awe at being allowed to be a factor in the mystery of the seed that planted in the earth awakes and starts its job and privilege of carrying on for its kind.

I cannot hope to make you comprehend the inward excitement that accompanies me as I gather the containers and tools for the operation; what visions arise as I screen and mix the soil for the bed. The leafmold for humus, the loam for cohesion, and the gravel for drainage, adding charcoal that the whole may be sweet. There is the medium mesh screen for the main fill and the finest for the top dressing for I am planting Begonia seed as fine as dust, much smaller than the Biblical grain of mustard, and this top soil must be as fine as it, so that it can hug close this tiny baby still asleep, and never let it get cold or dry. It is not well to give the idea that I am going to cover up this germ in its so small shell for I must not do that or it will never awake, it must be placed on the top of its bed and have the light turned off, and if it be kept just so warm and just so moist in a couple of weeks a little white speck will appear where all was brown, but, Oh, what a tender morsel; it cannot stand any sunlight or even strong light, but it wants some, and a little more every day, till the white has become green and then it is on its way, needing yet constant care but beginning to be its own plant, so to speak.

Part of my family, and a most important part, has been actively identified with a Child's Welfare organization and I have been privileged to pass judgment, my judgment that was wanted just for inference rather than as a guide to action, on scores of formulas for children's food, clothes, discipline or go-as-you-please, etc., etc., and while doing my best to have an opinion and express it diplomatically I have often wondered that the planting of seed, any seed, is approached with so much casualness. I have met numberless people who with seed packages in their hands have laughingly remarked, "I am sure they won't grow, I never can make them grow for me." This large class must have been in the mind of God when in giving to us every herb bearing seed and every tree in which is the fruit of a tree yielding seed, he saw to it that the seed should be produced so lavishly that even though some fell by the wayside and was devoured, and some fell in stony places and others among thorns, there yet, was left plenty for the good ground to yield an ample harvest. My petty imagination staggers when I think of the untold millions of seed that fall by the wayside in my lathhouse and then as I realize that without my aid they practically all fail, I get a bit of glow of accomplishment.

Today as some visitors were leaving I picked up a Crinum seed, possibly not a seed in the ordinary term for it is a roughly round grey lump as big as a small tangerine and looks like an undeveloped chayote. This forms on the end of the bloom stalk which in the course of nature falls over and our lump lies on the top of the ground for a space, then out of the lump comes a red round shoot which goes into the soil and forms a tuber from which leaves develop and the lump is discarded. It matters not at what angle this shoot comes out it will turn for the earth. This seems like a natural automatic seed planter.

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Consider the different kinds of seeds and pods designed to broadcast. Last summer in a hot spell the pods of a Hardenbergia exploded so that they could be heard all over the lathhouse and the kiddies love to squeeze the pods of Impatiens and have them go off in their hands. The seeds of that Silver Fir from South Africa, Leucadendron I think is its name, have a complete parachute attached by a thread to float them when they leave the cone. But why dwell on so obvious a thing as variation in seed, except that the obvious is the easiest to overlook.

I was near to forgetting the idea I had in mentioning these firing and floating habits of seed which was that the object is to spread, to move the little seedlings to fresh pastures as it were, and this seems to be a hard lesson for we sowers, who go forth to sow, to learn. We all crowd these tender things that want light and air. We plant all the seed all the time whether the container be large or small and rejoice when a solid green mat covers the whole surface. I say WE, because tomorrow I plant and I have never learned to use little enough seed. It is not a good stand when in a week or so the whole surface is covered, it is almost as bad as if there were nothing but bare soil. Oh sowers, scatter lightly if you would harvest the hundredfold.

I spoke of the tools for planting. There are of course the screens already used by the compost heap. Then the "firmer". Mine is a block perhaps three inches square with a handle, round at one end for pots, square at the other for boxes and it is enamelled for as smooth a surface as possible to prevent soil sticking. The seed sower I made out of a piece of zinc turning up a half-inch edge and tapering the open end to an exit of half an inch and with this and a St. Vitus jiggle I can get the seed however small, distributed more or less evenly. These tools are essential but endless substitutes can be devised, a mere block of wood and a piece of stiff paper.

Oh dear, my space filled and so little said on so fundamental a subject. Why no Epic of The Seed, Why no rest for the eternal succession and repetition of songs about the moon, Why not a song of the seed?

BOREGO VALLEY PALMS BECKON TO SAN DIEGANS

Preservation of Scenic Attractions in San Ysidro Mountains Advocated

By Lloyd S. Kelsey

Snugly tucked away in a rugged rocky fastness of the San Ysidro mountains lies Palm Canyon, which despite its virtual isolation has been an irresistible lure to hundreds of San Diegans seeking new fields to explore.

So thought Fred Sersen, scenic director for the Fox Film Corporation in Hollywood and developer of a large ranch in Borego Valley, his ranch manager, Medford R. Courtney, and the writer, as they viewed with amazed eyes these tawny palm trees, clustered among giant monoliths, battling for existence during centuries, against storms of wind and water.

Trickling its way amid these marvelous specimens of a bygone age is a mountain stream, clear and icy, to lose itself in the valley sands below. The canyon, inviting further exploration, we went up and up, more palms greeting us at every turn. A thousand there must be there—and this is not Thousand Palms Canyon that lies 10 miles farther north.

We had a feeling of awe as we stood beneath these age-old warriors of bygone grandeur. At places they crowded one another, so thick were they clustered in the narrow ravine. Standing beneath their thick shade, made of their fronds high above, gave us a feeling of imagination that ran back over the centuries through which they have inhabited this region. What an ebb and flow of civilization must they have witnessed.

Winding our way among the giant boulders, oftimes clambering over seemingly impossible places and parting drooping palm fronds we finally arrived at a wonderful pool of clear, cold water nearly 100 feet long and half that wide and quite deep, completely surrounded by stately palm trees, making an ideal setting of tropical splendor for some eastern potentate's palace garden.

Evidence of Upheaval

Sheer and abrupt walls of granite rose to either side, some of the megaliths weighing hundreds of tons, and a few that had fallen in past years, maybe centuries ago, were as large as a city dwelling and as high as the tallest palm tree, giving fact to the evidence of a terrific upheaval having taken place since creation in this canyon.

A tangled growth of wild grape vines intertwined about sycamore and cottonwood limbs and even grasping at the palm trees made progress somewhat difficult, and surmounting a huge boulder we took a last look at the rising walls of the canyon ahead and decided to wend our way homeward, after hiking nearly seven miles from the canyon's mouth.

There are many scenic points of interest in this canyon, noteworthy among them being the "Maiden's Bath," a large rock with an opening through the skylight, through which pours the creek, in which, during summer months people can bathe with insured privacy. There is another large cave, used by the Indians as a hiding place from enemies, the

entrance of which is completely hidden by a large rock.

Many Olla Fragments

Many olla fragments were strewn along the trail, showing that the Indians, the olla makers, had camped among the palm trees.

Many other canyons in this region have palm clusters. There must be thousands of these trees.

These trees, in their almost perfect natural setting, should be preserved for all posterity and the people of San Diego county should take some steps to insure their permanent care by their inclusion in some park site. Many of these magnificent trees have been ruthlessly destroyed by the hand of man and fire, their dry fronds being very readily inflammable, and one making this trek should be very careful about smoking in the groves.

To reach this beauty spot, and one which all San Diegans should familiarize themselves with, one drives a trifle over 100 miles from the county courthouse in an auto by way of Julian, Sentannac canyon, the "Narrows" (and one should be sure to turn to the left at the "Narrows") and Borego valley.

In addition to the educational worth of visiting Palm Canyon of Borego Valley, citizens can view the great humanitarian venture in which San Diego county is engaged at present with their Borego industrial camp, with which labor the great Julian-Kane Springs highway is being constructed at a great saving to the taxpayers and also effecting a reclamation of mankind.—San Diego Union.

"THOSE TAILORED FISH"

By Mrs. W. S. Thomas

The young woman visitor said, "No, I don't care for the Fantails, I like those tailored ones better." She referred to the Comets, and the more I think of her remark the more I am convinced she said something.

The common or straight tailed fish have much in common with a tailored suit—they are always in fashion—always fit for any occasion (or pool). The long, graceful tails are always pretty, always more durable than the fancy ones, which catch easily and tear on rough spots in cement pools or by swimming to those abominations called castles in aquariums. And although a Fan or Fringe tail is one of the most beautiful sights I must admit that experience in handling thousands of fish has proven that straight tailed ones are more healthy, which fact is probably due to less inbreeding of the latter.

But the Evening Dress varieties are too beautiful to ever be other than in the front row. Last year we had a lovely pair of fairly good Fringe tails and at spawning time we allowed nature her own sweet will, with the result that papa and mama ate up fully 99% of the eggs, but we knew enough always escape cannibal eyes to leave all that can live in a common pool without especial care.

This Spring, when giving the pool its annual bath and house cleaning, I found 28 children, all fantails, but all varieties of colors, and five of them with splendid telescope eyes, while the parents are solid red and with common eyes. Today—a year old—some are as large as the parents, while others range from that down to only about one and one-half inches—literally a case of dollars to cents and all from the same parentage and given same care.

To get back to the Tailored idea—you know a tear is almost sure to do more damage to the filmy Evening Gown—so also with fish, as the fancy tails are much more conspicuous if injured. A few days ago I saw a most beautiful specimen with tail more than twice the length of body, but the lower half literally torn to shreds. The owner was lamenting that the others had eaten its tail, but admitted she had never seen any such murderous attack. Then I pointed to the castle in the aquarium with a question as to rough edges. Yes, they were there—and plenty—and the long tail dragging over them all the time.

If you must have a castle, at least be humane enough to put it in a corner so the poor fish can have some room. You will find you also can arrange the aquarium much more effectively. Do the landscaping by placing the shrubbery (?) in and near the house with a little more in opposite corner. You will like the appearance and the fish will love the extra space and can keep their long trains.

But, WHY HAVE A CASTLE? Fish do not need a house, and many a time I have known a nice fish to be caught in a door or window and lose its life before being rescued—or to injure itself so it died later from disease entering the wound.

Instead of these unnatural water fixtures give your pets more growing plants, which are absolutely necessary, in order to provide oxygen and the microscopic life which is so abundant around water vegetation.

OBSERVATIONS ON A RECENT TRIP TO THE PARK SYSTEMS OF DENVER, KANSAS CITY, ST. LOUIS, CHICAGO, NEW ORLEANS, HOUSTON AND SAN ANTONIO

By John P. Morley

(Continued from Last Month)

September 27th and 28th were spent in Kansas City with Mr. W. H. Dunn, Superintendent of Parks, and his assistants, in traveling over the parks and boulevards and visiting other interesting features of the City.

Kansas City is noted for its foresight in acquiring extensive areas devoted to parks and boulevards. The system is well distributed in all parts of the City, within walking distance of its residents, and all connected with fine boulevards and parkways, under the control and management of the park department, on well devised plans by the late Mr. George E. Kessler, the noted landscape architect whose genius has produced one of the finest examples in existence of a comprehensive park system. This is being further extended by a continuous program adopted by the City authorities, which when completed, will comprise about 4,000 acres of parks and 140 miles of boulevards and parkways.

The city has one of the finest recreational systems in the country, including swimming pools, many baseball diamonds and tennis courts, polo fields, golf courses, art gallery, museums, etc.

I was particularly impressed with the beauty of the system as a whole, but more especially with Swope Park, an area of 1300 acres of undulating and well wooded land, with wide open vistas, large areas devoted to athletic fields, two golf courses, zoological gardens, lakes and lagoons for boating, the Blue River flowing through the park, and with its 20 miles of park roads, is the predominant feature of the system. This large area is free from all incumbrances and was the gift of the late Thomas H. Swope and is a lasting monument to his memory.

Space will not permit me to write of all the fine features of the system so I will quote the opinion of Mr. Andrew Wright Crawford, a city planning expert of Philadelphia, who says: "Of all the actual accomplishments that American cities can boast within the last twenty years, (this was written several years ago), none surpasses the park and parkway system of Kansas City. It is in its completeness, its pervasiveness, in the way it reaches every quarter and section of the city, that it surpasses the park systems of other cities of the world." Also the following extract from an address delivered Feb. 27, 1914, by Mr. Fletcher Cowherd, before the Real Estate Board of Kansas City, "One could scarcely conceive of a wiser use that a large sum of money could be put to by any municipality than the spending of more than thirteen million dollars under the direction of our various Park Boards on our park and boulevard system. It has paid, not only in the large increase of property values all over the city, a fact so patent to all that it needs no argument or demonstration, but it has added immensely to the pure joy of living for every man, woman and child in the city." (We should have that spirit in San Diego.)

I arrived in St. Louis early Monday morning, Sept. 29th, to attend the convention of The American Institute of Park Executives, held in the Convention Hall of the New Hotel Jefferson, Sept. 29-30 and Oct. 1-2, 1930. Attendance at the Convention was the largest the Institute ever had, nearly 500 delegates from all sections of the United States and Canada were present. Besides the delegates were many eminent men in city planning, recreation, horticultur, zoological gardens and kindred subjects, who took part in the excellent programs furnished throughout the convention as a whole, and in the discussion of problems before their respective branches of the Institute, making of it the most successful convention held, so far as numbers, results attained and increased interest in the aims of the society. An excellent entertainment program was furnished by the cities of St. Louis and East St. Louis, each afternoon was devoted to trips by bus over the park and boulevard system, Missouri Botanical Gardens, the excellent Zoological Gardens, and numerous points of interest in both cities and their environs.

Statistics: The City of St. Louis has 65 parks, covering approximately 3,000 acres, 1,400 acres of which are in Forest Park, which includes within its area, the Zoological Gardens, Open Air Theatre, the Art Museum, the Jefferson Memorial, 42 tennis courts (floodlighted at night), 22 baseball diamonds, soccer fields, parade ground and 3 golf courses. The Zoological Gardens cover 77 acres and are financed and managed separately from the park department, although contained within the park area.

There are 30 playgrounds and 7 public swimming pools operated by the Parks and Recreation Department within the system and are a credit to the City.

The Zoological Gardens are very fine, no expense has been spared in the construction of buildings and their equipment. The large collections of animals, birds and reptiles of almost every known species, are an excellent example of what can be accomplished with plenty of money and an intelligent management. The landscape plan of the gardens and the splendid architecture as a whole reflect a great credit to those in charge, and is a feature of which the city should justly feel proud.

I was rather disappointed in my visit to Shaw's Gardens, otherwise the Missouri Botanical Gardens. The trees and shrubs were not in good condition, and this is not to be wondered at when atmospheric conditions are taken into consideration. The smoke from the chimneys of the large factories and buildings settles on the foliage and soon deteriorates the healthy growth, this however, will be remedied when the new Missouri Botanical Garden now under construction has been developed outside the city. The gardens will again provide a place for study of healthy botanical

subjects by students and those interested in aboriculture, horticulture and floriculture. One subject of especial interest in the original gardens was the excellent collection of aquatics, the numerous varieties of water lilies were a revelation, and the kindred subjects used in water gardens were of a varied and interesting character.

East St. Louis has a very meritorious park system and at some later date I will write about the ambitious program they have under way for this city of about the same population as San Diego.

Each of the two cities are looking ahead by providing new and extensive areas to their park systems, so as to provide for coming generations to enjoy the park and recreational facilities provided for them.

(To be continued)

THE CULTURE OF CAMASSIAS

The camassias of Western America are just beginning to be appreciated by discriminating gardeners in the East. They are Spring flowering bulbs similar to the blue and white scillas but much more showy and effective when planted in groups among low perennials or in the shrubbery border. They will thrive without protection in any part of the United States and are now offered by several nurserymen.

Camassias are found growing wild in rich meadows which are very wet in the Winter and Spring but quite dry in Summer. Water often stands on the surface of the ground at flowering time. While they are best grown in a rather heavy soil with abundant moisture early in the season, they are amenable to cultivation and will grow well in any moderately moist garden loam. They should be set in the early Fall, from three to four inches apart, in masses of 12 to 100 plants, and about four inches deep. It is not necessary to lift the bulbs after they are through flowering in the Spring; in fact they can be left for years without being disturbed. The seeds sprout as readily as onion seeds, but they require three or four years to make flowering plants.

The three most common species of this distinctive group are Camassia esculenta, C. Leichtlinii and C. quamash. C. esculenta is a slender plant of the Mississippi region with light blue flowers on 12 to 18 inch stems. Exceeding it in size is the stouter-stemmed C. quamash from the West coast which has larger flowers varying from almost white to intense ultramarine in the different varieties. The finest of all camassias is C. Leichtlinii, for its masses of bloom approach the eremurus in beauty. It is fully twice as tall as C. esculenta and has both creamy white and deep blue to reddish-purple forms. All camassias are excellent as cut flowers for their blossoms open in long succession on the spikes.

—Horticulture.

FUCHSIA WALTER LONG

By Mrs. Howard W. Johnson

Much interesting matter concerning the Fuchsia has appeared in the California Garden in the past year, and it is presumable that there will be more of it in 1931. With two directors of the American Fuchsia Society located in San Diego, we may hope for valuable contributions from one or both of them each month.

As a Fuchsia lover and a member of the society, I should like to speak of one variety that seems not so well known, the fuchsia Walter Long. I sincerely hope I am right as to the name, and if I am not blame Mr. Harry Greene of Monterey.

This particular fuchsia makes one of the best of hanging basket subjects. It has a nice way of growing upright for a few inches and then making all its growth in a downward and spreading direction. Add to this its remarkably prolific blooming quality and you have something very fine for a basket. The leaf is most handsome, rather large, long, a deep and lustrous green with dark red midrib and fine red veins, the under side showing a decided red color. The bloom is pleasing, about two inches long from tip of stamen to stem. The calyx is the true fuchsia red, while the corolla is very short, tightly rolled and of a lovely soft purple. From the tip of the corolla a tiny cluster of coral pink stamens peeps out, and in the center of this cluster is one long stamen, protruding well beyond the tip of the flower. A well grown basket of this variety is a splendid sight when in full bloom.

There are, of course, a number of other varieties that do particularly well in baskets, one of them being the Salmon Queen (I hope the name is right), but none of them exceeds in beauty and service the one I have tried to describe for you.

A VEGETABLE FURNACE

Alpine plant, Soldanella, melts its way up through the surface ice-sheet and opens its pretty blue blossoms bravely to gaze upon an icy world. It is literally a slow-combustion stove and burns itself up in order to melt the ice in its journey upward. Soldanella's winter leaves hibernate under the snow just as truly as an animal hibernates, and are large, tough and evergreen. They are like living reservoirs of fuel, stored up during summer heat.

Summertime leaves have long stalks, enabling them to stretch to light. Autumntime finds them flattened against the soil so as not to be snow-crushed. Water trickling through melting edge of ice-sheet starts rootstock budding. By the time Soldanella has bloomed, the leaves are completely drained skeletons, compelling our little Eskimo to grow a new set.—C. D. B.

PLANTS WITH ORNAMENTAL BRACTS

By Fidella G. Woodcock
San Diego Natural History Museum

Musa

Around our Moorish architectural designs for artistic bungalows of San Diego and the desert towns we are becoming accustomed to see large-leaved plants that grow to the proportions of a tree, but although of tree size most of them are trunkless and have the habits of the short-stemmed monocotyledons — the one seed-leaf division of flowering plants.

While most of them represent the banana of commerce, or the wild plaintain, one species, **Musa paradisaica,** of the East and West Indies, the cooking banana, has out of its fifteen varieties ten that are edible and many others that are purely ornamental. **Musa Ensete,** the Abyssinian Mountain Banana, is the species best known for cultivation and grows successfully in the parks and gardens here, bearing edible fruit. It yields a good fibre for making rope, sometimes growing to a height of 40 feet, and produces in the Philippines Manila Hemp.

The common banana is a plant from India from which most of the commercial bananas are obtained in subspecies.

Strelitzia

The Bird-of-Paradise Flower is the nearest relative of the banana tree. Though an herbaceous perennial it is grown for its showy large foliage.

Like the Areca palm the leaves have the habit of splitting and often appear to be ragged and wind-whipped. Its parallel veins are the mark of a true monocotyledon. This plant is one of our picturesque garden plants. Ordinarily, the leaves are large and long petioled. The plant of **Strelitzia Reginae** is only three feet high. The stalks of the leaves, however, are three times as long as the leaf blades and are all radical (at the roots).

The flower-scapes with blue and orange bird shaped blossoms appear with the lightness of a bird just ready for flight, above the leaves.

Three species of Strelitzia are found in San Diego Gardens—**Strelitzia Reginae, S. Nicolai** and **S. angusta.** The species **angusta** is very tall and of tree size. Being quite slender it well deserves the name **Strelitzia angusta,** given to it by some authors. It has pure white flowers, covered in bud by a purple boat called a spathe. **Angusta** means narrow or hard set, and its leaves are in two rows so close together that they will exude water at times. The reason of this is that the lower vascular cells have become hardened and run in a curved line from their entrance into the stem at the base of the leaf, towards the center of the stem, and then bend outwards and proceed downwards in a direction more parallel to the sides of the stem. The bundles formed later in those stems which increase in thickness are not continued into the leaves, but form hollow water cells. By picking the leaves, travellers in the deserts of Africa where **Strelitzia augusta** is met with in places remote from wells, get some drinking water, though not so much as is contained in **Ravenala madagascarensis,** another near relative growing on the islands of South Africa.

Strelitzia however, is the mainland genus of the rocky deserts similar to **Ravenala** of the islands near Africa in the Indian Ocean.

Ravenala

"The Traveller's Palm" or Fountain Tree is much larger in its capacity for holding water than **Strelitzia angusta.** In fact, the curved bases of the more thickened cell-walls form a wide bowl with leaves enveloping one another in the shape of an enormous fan, so close-set that it acts as a container, filling from the root periodically with drinking water from wells underground. This is **Ravenala madagascarensis.** It gives drink to travellers and camels in the deserts remote from the oases—but is seldom seen in gardens, although of the banana group.

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Heliconia

Belongs to this group. It is called Wild Plantain on Bermuda and is at home with the Bermuda Lily.

In one way it is different from the banana. The Banana fruit is really a berry having the form of a short cucumber. Seeds are developed only in the wild state.

Heliconia fruit is dry without fleshy pulp and the flower parts are differently arranged.

It is cultivated in warm houses with large-leaved arums, alocasia (elephant's ears) and others that are beautifully marked. The flowers are usually in clusters below the leaves having colored bracts like Musa.

Plants of this order are thought to be natives of Asia brought into tropical America before it was discovered. There are various beliefs about their origin.

THE SARACA BEAN

One of the more recent trees that appears in our gardens is the Saraca Bean from India, truly leguminous, with the characters of a luxuriant bean.

The leaves are compound, glossy, leathery, often in few pairs, and the flowers a brilliant yellow, rose, or scarlet, in racemes, shorter than the leaves. It has no petals but owes its color to the showy red bracts appearing as a calyx.

With us it is not yet a tall tree, though in Southern Florida near the tropics it grows larger—to 40 feet. When mature the pods are sometimes over a foot long and two and a half inches wide.

The name is derived from **Sarac**, the name of the genus in India referring to the burial of the fleshy seed in the thick lining of the pod that is quite woody and strong.

In gardenology Saraca is a genus of leguminous plant akin to **Amherstia nobilis** that we know something of in our Flower Exhibits, said to be the most beautiful known flower in the world, its long brilliant racemes hanging double on the tree that is illumined by the colored petal-like bracts. The bright bracts are found taking the place of petals in some other plants that we know, in the Poinsettias, Buginvilleas, Salvias and several other groups of familiar garden plants.

Buginvillea is the late spelling of the name.

RHODODENDRON COLLECTION IS GIVEN TO UNIVERSITY OF CALIFORNIA

A rhododendron collection, said to be the finest in the United States, has been presented to the University of California by a group of donors, according to announcement by President R. G. Sproul. The collection contains 10,000 specimens, more than half of which are of especial interest.

The collection was purchased from Carl H. Andries and M. Jongeneel, who had propagated the plants at their nursery at Aptos, near Santa Cruz. An informal committee of San Francisco men secured the donations, amounting to $27,100 to finance the purchase and care of the collection for five years. This committee consisted of James B. Smith, Walter D. Bliss, Dr. E. G. Vandevere, and H. Koenig.

Donors Are Listed

The list of donors includes Regents Mortimer Fleishhacker, William H. Crocker, Sidney M. Ehrman, and John Francis Neylan, An Alumnus, F. W. Bradley, Selah Chamberlain, R. Stanley Dollar, James B. Smith, E. L. Oliver, Daniel E. Koshland, J. D. Zellerbach, Leland S. Rosener, Walter S. Heller, John A. McGregor, Mrs. John R. McGregor, J. Sheldon Potter, Warren Olney, Jr., and Colis Mitchum, all of San Francisco.

The rhododendrons are to be placed along the banks of Strawberry Creek in the canyon, where the botanical garden has been laid out. Some of the duplicates of less interesting varieties are to be used in other places about the campus for beautification.

Andries Comes to University

With the announcement of this gift to the University, is the statement that Andries will come to the Berkeley campus as superintendent of the Botanical Garden and rhododendron expert. He is a native of Germany and was trained in that country, having been associated with several large seed firms there. Later he was propagation expert for a large museum in New Zealand, and more recently was employed at Golden Gate Park in San Francisco, where there is a fine collection of rhododendrons. While there he was able to grow from seed many rare species from the Himalaya Mountains.

The collection was offered to the University several months ago, and through the efforts of Professors T. H. Goodspeed and W. A. Setchell of the Botany Division and the San Francisco committee, funds were secured for its purchase.

SHIPPING CUT FLOWERS

Shipping Cut Flowers from Southern California is a new industry, by E. W. McLellan Company of Los Angeles especially. No one is allowed in the packing room. No one is wanted there. If you were allowed to go there, you would see the new method of packing cut flowers that they have inaugurated that allows them to ship flowers clear across the country without refrigeration service. And the flowers arrive just as fresh as when they leave Los Angeles. They say to the eastern customer, "If you don't believe it, send for a trial order of whatever flowers you need. Then you'll know."

K. O. Sessions.

Patronize the Garden Advertisers.

Cactus Fanciers, Attention! In Washington Park (Old Town Plaza) is an agava shawi in bloom, a native of the southwestern and Lower California. As these have nearly all disappeared from the United States and there is a plant quarantine between here and Mexico, the only way these may be produced is by seeds as they never have any suckers.

In the cactus garden at Ramona's Marriage Place is an Aloe ferox (native of the Cape Regions) blossoming, one of the tallest and largest leaved of the aloes. This species never grows any suckers on side shoots and very few seeds, therefore it is considered one of the rarer aloes. You can see this plant from the sidewalk opposite Milton P. Sessions Floral Studio.—C. I. J.

SANSEVIERIA

What a rare treat, when one's faithful and beautiful Sansevieria blooms!

Not a usual occurrence, for only once or twice in several years has our particular houseplant blossomed, and few friends or acquaintances confess to knowing such plants really do bloom.

Some weeks ago, we noted a wee bloomstalk peeping forth from between two somewhat spiraled leaves of our indoor Sansevieria Laurenti. Not much to become excited over, we thought, having a hazy remembrance of a former blossoming. Up and up, grew the dainty stalk until it reached a height of about a foot. Still modest looking, but we did see many drops of honey all up and down the stalk where the buds joined. Later, numerous unopened buds fell off—little tight, green tubular ones. And then, one evening about ten days after the stalk's appearance, several buds unfurled emitting a delightful perfume readily noted by even a general "sniff" of the room. The flowers were like airy little white lilies of some sort, the odor of which reminded us of narcissus, yet more pleasing. By morning, these blooms had faded and lost their scent, and all other buds remained tightly closed during the day. Again, the next evening, and each night thereafter, for fully a week, we were charmed by the lovely plant's white flowers and perfume.

Then, after dozens of blossoms had favored us, the fairy stalk changed to just a little dry stem and the show was over. We will long remember our dear plant's effort and hope next season will bring another blooming time. This houseplant of Sansevieria was the only one to flower, the many outdoor ones maintaining their usual dignified appearance.

Friends, have you had similar experience with Sansevierias? Bailey's Cyclopedia makes no mention of this night-blooming habit, but does mention their beautiful and fragrant flowers.

Constance D. Bower.

NATURE CLUB IS TO INCORPORATE

Agassiz Nature Club of Long Beach is the name under which one of the city's most interesting organizations is to incorporate, according to a vote at the recent business meeting.

The object of the club, as expressed in its article of incorporation, is the stimulation of interest in nature study in the city of Long Beach as a means of making its citizenry happier and better by lectures, field trips and exhibitions revealing the wonder and beauty of the stars, the rocks, the birds, the butterflies, the trees, the wild flowers and all our native water and land plants and animals; enlightening the public on the great physical, mental, aesthetic and ethical value of nature study; encouraging a greater love of nature study in our youth, to the end that childhood may be made more pleasant, healthful, moral and profitable; fostering a proper conservation of our native birds, animals, wild flowers, trees and shrubs; and sponsoring the establishment and proper maintenance of a museum of natural history, municipal aquarium, marine laboratory, bird and wild flower sanctuaries, and nature trails in the city of Long Beach.

Newly elected officers of the club are Earl W. Wood, president; Mabel Gray Best, vice-president; Daisy L. Reed, corresponding secretary, and Elizabeth Brykit, secretary-treasurer. All are welcome to join this club and may do so by communicating with the secretary at 527½ East Nineteenth Street.

P. W. Rankin, veteran astronomer of Long Beach and instructor in Polytechnic High School, who is a member of the club, gave an interesting talk at the meeting and members gazed through the two telescopes provided for them.—Long Beach Sun.

"BLACKMAIL" PLANTS

Many plants buy off marauders by feeding them from a special nectar supply stored in cells on under side of leaves. Insects in quest of sweets partake of the first they find, revelling in them until drunkenly falling off, completely fooled by the ingenious plant.

One will note that all plant weapons, such as thorns and daggers, point downward to meet scaling forces, growing thicker and thicker as they near the honey treasure. Thistle is a downy bed of purple for the welcome honey bee, while it is a dreaded thing to robber insects.

Cattle have learned to avoid "cutting" grasses and bristly plants. Blades of these grasses are hardened with silica. The common horsetail, a plant of this species, makes deathly sick those unwise animals who attempt to eat it.—C. D. B.

Patronize the Garden Advertisers.

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